LOFGREN VOWS TO PROTECT STEM CELL RESEARCH

Washington, DC - Congresswoman Zoe Lofgren (D-CA) today introduced an amendment to protect the use embryonic stem cells in research. The amendment was offered at a House Judiciary Committee markup of H.R. 534, the Human Cloning Prohibition Act, and would exempt therapeutic cloning of stem cells for research into some of the most disabling injuries and diseases. The Lofgren amendment would decriminalize the use of therapeutic cloning while preventing the use of these cells in reproductive cloning. As H.R. 534 is written now, it would be illegal to use therapeutic cloning in medical research and the development of medicines

"Reproductive cloning is wrong and it should be banned. But this measure goes too far, and by hampering research today, we are preventing cures in the future," said Lofgren. "Appeasing special interests is no excuse for prohibiting important research into diseases such as cancer, Alzheimer's disease, spinal cord injuries and strokes."

Lofgren's amendment would also allow Americans to take advantage of therapies and medicines developed by researchers in other countries using therapeutic cloning. Right now, the Weldon-Stupak bill prohibits Americans from benefiting from this important research that is conducted overseas.

"Why are we allowing a small segment of America's population define our scientific future? We are even outlawing individuals from benefiting from this research that was conducted outside this country," said Lofgren. "I cannot imagine telling people that a cure for Alzheimer's disease has been found, but because this research is the result of therapeutic cloning or stem cell research, it is illegal for you as an American to benefit. I find this appalling."

Therapeutic cloning is very different from reproductive cloning. Reproductive cloning is the use of cloning technology to create a child. However, therapeutic cloning, also described as somatic cell nuclear transfer (SCNT), is defined by the transplanting of a patient's DNA into an unfertilized egg in order to grow stem cells that could cure devastating diseases.

Congresswoman Zoe Lofgren is serving her fifth term in Congress, and she has been recently named by House Democratic Leader Nancy Pelosi to be an At-Large Whip and the Steering and Policy Committee. She represents most of the City of San Jose and Santa Clara County in Congress.

Below are some frequently asked questions regarding therapeutic cloning:

Frequently Asked Questions About SCNT (Therapeutic Cloning)

From the Coalition for the Advancement of Medical Research (CAMR)

1. Whether you call it "therapeutic cloning" or "somatic cell nuclear transfer" or "nuclear transplantation," it is still cloning - isn't it?

Scientists do many kinds of cloning every day, most of which is commonly accepted. Cloning has allowed scientists to develop powerful new drugs and to produce insulin and useful bacteria in the lab. It also allows researchers to track the origins of biological weapons, catch criminals, and free innocent people.

There's a world of difference between reproductive cloning - something that should be banned right away - and therapeutic cloning. Therapeutic cloning offers great promise for curing deadly and terrible diseases. Therapeutic cloning could save lives; it doesn't create people.

2. What exactly is therapeutic cloning?

Better described as somatic cell nuclear transfer (SCNT), therapeutic cloning is the transplanting of a patient's DNA into an unfertilized egg in order to grow stem cells that could cure devastating diseases. The promise of SCNT is that the patient's body would accept these cells after transplantation. Therapeutic cloning produces stem cells, not babies. NO sperm is used in this procedure. The cells are not transplanted into a womb. SCNT aims to treat or cure patients by creating tailor-made, genetically identical cells that their bodies won't reject. In other words, SCNT could allow patients to be cured using their own DNA.

3. What exactly is reproductive cloning?

Reproductive cloning is the use of cloning technology to create a child.

CAMR opposes reproductive cloning. Patient advocacy groups and leading scientists, including the National Academy of Sciences, and a huge majority of the American people agree that human reproductive cloning should not be allowed.

4. How can therapeutic cloning, or SCNT, help cure disease?

Many of the most debilitating diseases and conditions are caused by damage to cells and tissue. When combined with stem cell research, SCNT could be used to develop new and innovative treatments-such as replacement cells and tissue-that allow organs to function again and restore hope to millions of families.

SCNT is also integral to improving scientists' understanding of how stem cells and other cells develop. This new knowledge could speed the search for new treatments-and possibly cures-for some of the most complex diseases that plague our society.

In particular, SCNT could allow researchers to move stem cell research to a new level, developing stem cell therapies that are specifically tailored to an individual's medical condition. Moreover, SCNT could help scientists develop stem cells that will not be attacked and destroyed by the body's immune system. This holds particular promise for patients who suffer from diabetes, heart disease, and spinal cord injuries.

5. With therapeutic cloning, aren't we going down a slippery slope with this brand of science toward creating life?

Not at all. With therapeutic cloning, there is no fertilization of the egg by sperm, no implantation in the uterus and no pregnancy. Dr. Harold Varmus, the former head of the National Institutes of Health (NIH) and a Nobel laureate, says there is a profound distinction between cloning with the intent of making a human being and research cloning to help understand and treat life-threatening diseases and conditions.

6. Don't we already have enough stem cells for research? Plus aren't adult stem cells more promising than embryonic stem cells? Why must we use SCNT?

No, we don't have enough stem cells for research. There are only a small number of NIH-approved embryonic stem cell lines available to government-supported researchers and not enough to proceed at full pace with extensive research into treatments and cures. There certainly are not enough to turn research into treatments.

The cells currently available to researchers are insufficient because:

1. They do not allow full investigation of the genetic causes of disease. For example, scientists need to create new cells that actually contain genetic diseases in order to study how these diseases affect the growth and development of other

cells and tissue.

2. They are not sufficiently racially or ethnically diverse. Certain diseases are more prevalent in people of particular races (such as sickle cell disease). By creating new stem cells from people of specific races, scientists could help unravel the causes of these diseases.

3. Scientists need more cell lines to fulfill the promise of stem cell research. Adult stem cell research shows promise in some areas and should be pursued. However, our nation's top scientists, the National Institutes of Health, and the National Academy of Sciences all agree that embryonic stem cells have greater potential - they are "pluripotent" (can make any cell in the body) and "immortal" (can be grown in a lab indefinitely) - than adult cells.

7. What is so wrong about the House bill co-authored by Representatives Dave Weldon (R-FL) and Bart Stupak (D-MI)?

The Brownback and Weldon-Stupak bills would criminalize therapeutic cloning and tie the hands of scientists who are working on cures and treatments. Their legislation would prevent scientists from helping the 100 million Americans who suffer from so many terrible diseases.

8. Some people and organizations favor a temporary moratorium, which sounds reasonable. What's wrong with a moratorium?

A "temporary" moratorium equals a ban. We should be giving our top scientists and doctors every possible tool to push for breakthroughs in treating cancer, Alzheimer's Disease, Parkinson's Disease, juvenile diabetes, spinal cord injuries, stroke and a multitude of other diseases. Further, a moratorium is unnecessary because the National Academy of Sciences has already studied the potential of therapeutic cloning and issued a recent report validating this research.

A moratorium would:

- Put life-saving medical breakthroughs on indefinite hold. Many of the patients suffering from these diseases do not have time to wait. For them, a delay in research could be a death sentence.

- Send the wrong signals to our scientists. It would tell scientists, including those just beginning their careers, that therapeutic cloning should not be pursued for fear that the work could become illegal at some unknown point in the future. It would stigmatize this research as suspect. It, in effect, would bring this type of research to a grinding halt, making it difficult to be restarted once the moratorium expires.

- Allow other countries to take the lead in cutting edge research. While research in the U.S. would stop, it would continue in other countries. The result would be the development of cures and treatments elsewhere. Americans would, therefore, have less access to breakthrough drugs and products.

- Set up political hurdles down the road because lifting a Congressional ban is more complicated and time-consuming than it sounds. Terminally ill patients would be forced to wait while politicians discuss, debate and delay.

With these diseases affecting over 100 million Americans, there is no time to waste. Just ask anybody who suffers from Parkinson's or anyone who cares for someone with Alzheimer's whether they are willing to wait. Read more about why a moratorium equals a ban. http://www.camradvocacy.org/fastaction/MORATORIUM.asp

9. With confusion about the different kinds of cloning, what is to prevent unethical, rogue scientists from performing full-fledged, reproductive cloning under the guise of therapeutic cloning?

We support immediate creation and enforcement of strict regulations to supplement existing FDA regulations, including a complete ban on reproductive cloning, stiff penalties for breaking the law, and rules to ensure that therapeutic cloning

occurs under a comprehensive oversight system.

10. Would therapeutic cloning lead to a market for women's eggs and the exploitation of women?

There won't be a market for eggs. The main purpose of SCNT is to perform research to understand how cells develop. Once that is understood, the process can be replicated in a laboratory and there will be no need for new eggs.

Further, under the terms of soon to be introduced legislation, research must be reviewed by an independent review board to ensure that the research will be done according to the highest ethical standards including: protection of women, informed consent, and no undue financial inducements.

11. Isn't therapeutic cloning a slippery slope that leads to reproductive cloning? Where is the dividing line?

Implantation into a womb is the clear, bright line that divides reproductive and non-reproductive technologies. Without implantation, no new human life is possible. This is where society can and must draw the line.

It is the responsibility of lawmakers to establish lines between what is acceptable and what society as a whole has deemed unacceptable.

12. So what should the Congress do - what is CAMR's solution?

We should immediately adopt legislation that keeps the door open to life-saving medical research, but closes it on reproductive cloning. It would be a tragic mistake to let our outrage over reproductive cloning blind us to the life-saving potential of therapeutic cloning.